## Anatomy and Embryology

Continuation of Zeitschrift für Anatomie und Entwicklungsgeschichte

Volume 159 1980

## **Editorial Board**

K. Fleischhauer

Managing Editor

Anatomisches Institut der Universität. Nussallee 10, D-5300 Bonn

S. L. Palay

Dept. of Anatomy, Harvard Medical School, 25 Shattuck Street,

Managing Editor

Boston, Mass. 02115, USA

R. Bellairs

Department of Anatomy and Embryology, University College London, Gower Street, London WC1E 6BT, England

R. Bunge

Department of Anatomy and Neurobiology, Washington University, School of Medicine, 660 South Euclid Ave., St. Louis, Mo. 63110, USA

H.-R. Duncker

Zentrum für Anatomie und Cytobiologie, Justus-Liebig-Universität,

Aulweg 123, D-6300 Giessen

W.-G. Forssmann Anatomisches Institut der Universität, Im Neuenheimer Feld 307, D-6900 Heidelberg

M. Okamoto

Department of Anatomy, Faculty of Medicine, Brain Research

Institute, Kyoto University, Kyoto, Japan

R. K. Schenk

Anatomisches Institut der Universität,

Bühlstr. 26, CH-3000 Bern 9

K. Theiler

Anatomisches Institut der Universität.

Gloriastr. 19, CH-8006 Zürich

F. Walberg

Anatomisk Institutt, Karl Johans Gate 47,

Oslo 1, Norway

Manuscripts may be sent to any member of the Editorial Board



Springer International

## Anatomy and Embryology

Continuation of Zeitschrift für Anatomie und Entwicklungsgeschichte

This Journal was founded in 1876 as the Zeitschrift für Anatomie und Entwicklungsgeschichte, edited by W. His and W. Braune and published by F.C.W. Vogel in Leipzig. After its second year, in 1877, the Journal became the Anatomische Abteilung of the Archiv für Anatomie and Physiologie, edited by His and Braune and published by Veit & Co. in Leipzig. From 1892 through 1903 His was the sole editor. In 1904 W. Waldeyer became the editor. From 1913 until 1919 it appeared as Archiv für Anatomie, edited by W. von Waldeyer-Hartz, H. Virchow and P. Röthig. It was published until 1915 by Veit & Co. in Leipzig and later by de Gruyter & Co. in Berlin.

After 1919 publication was suspended, but in 1921 the Archiv für Anatomie merged with Anatomische Hefte to become Abteilung 1 of the Zeitschrift für die gesamte Anatomie. Anatomische Hefte had begun in 1892 with F. Merkel and R. Bonnet as editors and J.F. Bergmann as publisher in Wiesbaden. In 1919 E. Kallius and F. Heiderich became the editors and Bergmann moved to Munich. Fifty nine volumes had been published by 1920. When the Journals combined in 1921, the numbering of the volumes continued the unbroken sequence of Anatomische Hefte, but the name adopted was the original name of the older Journal. Therefore, the Zeitschrift für Anatomie und Entwicklungsgeschichte (Abteilung 1 of the Zeitschrift für die gesamte Anatomie) re-appeared as volume 60 in 1921. J.F. Bergmann, Munich and J. Springer, Berlin were the joint publishers. The editors were coopted from both parent Journals – Waldeyer-Hartz and Kallius, with the addition of H. Braus for the first three volumes. From volume 63 to volume 76 inclusive, Kallius and Braus were the editors and from volume 77 to volume 103 Kallius was the sole editor. From volume 88 onwards Springer became the sole publisher.

In 1934, with no. 3 of volume 103, Curt Elze became the editor and the full title of the Journal became simply Zeitschrift für Anatomie und Entwicklungsgeschichte. From volume 116 to volume 121 Elze shared the editing work with K. Zeiger and from volume 122 to volume 126 with R. Ortmann. With volume 126 Ortmann became the Managing Editor and was soon joined (volume 127) by an international Editorial Board consisting of J. Dankmeijer, K. Fleischhauer, H. Frick, B. Kummer, M. Okamoto, S.L. Palay, K. Theiler and F. Walberg. In 1974, a subtitle Journal of Anatomy and Embryology was introduced but used for two volumes only. From volume 146 the primary title became Anatomy and Embryology. In 1974 G. Raisman replaced J. Dankmeijer on the Editorial Board. In 1978, with volume 155, K. Fleischhauer and S.L. Palay became the Managing Editors and the Editorial Board consisted in addition of R. Bellairs, R. Bunge, H.-R. Duncker, W.G. Forssmann, M. Okamoto, R.K. Schenk, K. Theiler and F. Walberg.

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions, also in microform, is transferred to the publisher.

The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Authors of this journal can benefit from library and photocopy fees collected by VG WORT if certain conditions are met. If an author lives in the Federal Republic of Germany or in West Berlin it is recommended that he contacts Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestrasse 49, D-8000 München 2, for detailed information.

Die in der Zeitschrift veröffentlichten Beiträge sind urheberrechtlich geschützt. Alle Rechte, insbesondere das der Übersetzung in fremde Sprachen, vorbehalten. Kein Teil dieser Zeitschrift darf ohne schriftliche Genehmigung des Verlages in irgendeiner Form – durch Fotokopie, Mikrofilm oder andere Verfahren – reproduziert oder in eine von Maschinen, insbesondere von Datenverarbeitungsanlagen, verwendbare Sprache übertragen werden.

Auch die Rechte der Wiedergabe durch Vortrag, Funk- und Fernsehsendung, im Magnettonverfahren oder ähnlichem Wege bleiben vorbehalten.

Fotokopien für den persönlichen und sonstigen eigenen Gebrauch dürfen nur von einzelnen Beiträgen oder Teilen daraus als Einzelkopien hergestellt werden. Jede im Bereich eines gewerblichen Unternehmens hergestellte oder benützte Kopie dient gewerblichen Zwecken gem. § 54 (2) UrhG und verpflichtet zur Gebührenzahlung an die VG WORT, Abteilung Wissenschaft, Goethestraße 49, D-8000 München 2, von der die einzelnen Zahlungsmodalitäten zu erfragen sind.

Autoren dieser Zeitschrift können unter gewissen Voraussetzungen in die Individualausschüttung von Mitteln aus der Bibliothektantieme und dem Fotokopieraufkommen mit einbezogen werden. Genaue Informationen erteilt die Verwertungsgesellschaft WORT, Abteilung Wissenschaft, Goethestraße 49, D-8000 München 2.

Die Wiedergabe von Gebrauchsnamen, Handelsnamen, Warenbezeichnungen usw. in dieser Zeitschrift berechtigt auch ohne besondere Kennzeichnung nicht zu der Annahme, daß solche Namen im Sinne der Warenzeichenund Markenschutz-Gesetzgebung als frei zu betrachten wären und daher von jedermann benutzt werden dürften.

Springer-Verlag, Berlin · Heidelberg · New York

Printers: Universitätsdruckerei H. Stürtz AG, Würzburg

Printed in Germany - © by Springer-Verlag Berlin-Heidelberg 1980

## **Contents**

A Line Y W L CI LAN	
Andries, L., s. Vanroelen, Ch., et al.	361
Bird, M.M.: The Development and Ultrastructure of Previously Dissociated Embryonic Chick	
Corpus Striatum Cultured on Feeder Layers of Liver Cells	115
Burke, B., s. Narbaitz, R., et al	307
Chan-Palay, V., s. Yamamoto, M., et al	137
Chen, LT., Weiss, L.: Megakaryocytes in Steel Mutant Mice	277
Cowan, W.M., s. O'Leary, D.D.M., et al	151
Davignon, R.W., Parker, R.M., Hendrickx, A.G.: Staging of the Early Embryonic Brain	
in the Baboon (Papio cynocephalus) and Rhesus Monkey (Macaca mulatta)	317
Eriksson, A., s. Forsgren, S., et al	125
Forsgren, S., Thornell, LE., Eriksson, A.: The Development of the Purkinje Fibre System	
in the Bovine Fetal Heart	125
Gaare, J.D., Langman, J.: Fusion of Nasal Swellings in the Mouse Embryo. DNA Synthesis	
and Histological Features	85
Gay, C.V., s. Rieder, E., et al	17
Geelen, J.A.G., Langman, J., Lowdon, J.D.: The Influence of Excess Vitamin A on Neural	17
Tube Closure in the Mouse Embryo	223
Goffinet, A.M.: The Cerebral Cortex of the Reeler Mouse Embryo. An Electron Microscopic	223
Analysis	199
Gottschall, J., Neuhuber, W., Müntener, M., Mysicka, A.: The Ansa Cervicalis and the	199
Infrahyoid Muscles of the Rat. II. Motor and Sensory Neurons	59
	49
Gottschall, J., s. Müntener, M., et al	163
Hassler, R., s. Romansky, K.V., et al	317
Hendrickx, A.G., s. Davignon, R.W., et al	
Hernandez-Nicaise, ML., s. Léger, L	181
Hewing, M.: Synaptic Ribbons in the Pineal System of Normal and Light Deprived Golden	71
Hamsters	71
Hsu, YC., s. Libbus, B.L.	235
Ivanov, D.P., s. Romansky, K.V., et al	163
Jenner, S., s. Onténiente, B., et al.	245
Kacew, S., s. Narbaitz, R., et al	307
Klemm, H.P., s. Onténiente, B., et al.	245
König, N., s. Onténiente, B., et al	245
Langman, J., s. Gaare, J.D	85
Langman, J., s. Geelen, J.A.G., et al	223
Léger, L., Hernandez-Nicaise, ML.: The Cat Locus Coeruleus. Light and Electron Mic-	
roscopic Study of the Neuronal Somata	181
Libbus, B.L., Hsu, YC.: Changes in S-Phase Associated with Differentiation of Mouse	
Embryos in Culture from Blastocyst to Early Somite Stage	235
Lowdon, J.D., s. Geelen, J.A.G., et al	223
Loy, R.: Development of Afferent Lamination in Ammon's Horn of the Rat	257
Lundkvist, Ö., s. Naeslund, G., et al	33
Marty, R., s. Onténiente, B., et al	245
Metz, J.: On the Developing Rat Placenta. I. Differentiation and Junctional Alterations	
of Labyrinthine Layers II and III	289
Müntener, M., Gottschall, J., Neuhuber, W., Mysicka, A., Zenker, W.: The Ansa Cervicalis	
and the Infrahyoid Muscles of the Rat. I. Anatomy; Distribution, Number and Diameter	
of Fiber Types; Motor Units	49
Müntener, M., s. Gottschall, J., et al	59
Mysicka, A., s. Gottschall, J., et al.	59
Mysicka, A., s. Müntener, M., et al.	49
Naeslund, G., Lundkvist, Ö., Nilsson, B.O.: Transmission Electron Microscopy of Mouse	
Blastocysts Activated and Growth-Arrested in vivo and in vitro	33

Narbaitz, R., Kacew, S., Burke, B.: Ultrastructural and Biochemical Alterations in the Livers
from Chick Embryos Maintained in Shell-less Culture
Neuhuber, W., s. Gottschall, J., et al
Neuhuber, W., s. Müntener, M., et al
Nilsson, B.O., s. Naeslund, G., et al
O'Leary, D.D.M., Stanfield, B.B., Cowan, W.M.: Evidence for the Sprouting of the Associational Fibers to the Dentate Gyrus Following Removal of the Commissural Afferents in Adult Rats
Onténiente, B., König, N., Sievers, J., Jenner, S., Klemm, H.P., Marty, R.: Structural and
Biochemical Changes in Rat Cerebral Cortex after Neonatal-6-Hydroxydopamine Adminis-
tration
Palay, S.L., s. Yamamoto, M., et al
Parker, R.M., s. Davignon, R.W., et al
Rieder, E., Gay, C.V., Schraer, H.: Autoradiographic Localization of Carbonic Anhydrase
in the Developing Chorioallantoic Membrane
Romansky, K.V., Usunoff, K.G., Ivanov, D.P., Hassler, R.: Pallidosubthalamic Projection
in the Cat. Electron Microscopic Study
Sarnat, B.G.: Orbital Volume in Young and Adult Rabbits
Schleicher, A., s. Zilles, K., et al
Schraer, H., s. Rieder, E., et al
Sievers, J., s. Onténiente, B., et al
Stanfield, B.B., s. O'Leary, D.D.M., et al
Steinbusch, H.W.M., s. Yamamoto, M., et al
Taugner, R.: Myelinated Dendrites in the Spinal Cord of Frogs (Rana esculenta) 81
Thornell, LE., s. Forsgren, S., et al
Usunoff, K.G., s. Romansky, K.V., et al
Vakaet, L., s. Vanroelen, Ch., et al
Vanroelen, Ch., Vakaet, L., Andries, L.: Distribution and Turnover of Testicular Hyaluroni-
dase Sensitive Macromolecules in the Primitive Streak Stage Chick Blastoderm as Revealed
by Autoradiography
Weiss, L., s. Chen, LT
Wilson, D.B.: Patterns of Proliferation in the Hypophysis of the Mouse Embryo. A Quantitative Autoradiographic Study
Yamamoto, M., Chan-Palay, V., Palay, S.L.: Autoradiographic Experiments to Examine
Uptake, Anterograde and Retrograde Transport of Tritiated Serotonin in the Mammalian
Brain
Yamamoto, M., Chan-Palay, V., Steinbusch, H.W.M., Palay, S.L.: Hyperinnervation of
Arrested Granule Cells Produced by the Transplantation of Monoamine-Containing Neu-
rons into the Fourth Ventricle of Rat
Zenker, W., s. Müntener, M., et al
Zilles, B., s. Zilles, K., et al
Zilles, K., Zilles, B., Schleicher, A.: A Quantitative Approach to Cytoarchitectonics, VI.
The Areal Pattern of the Cortex of the Albino Rat

Indexed in Current Contents